

Synthesis of an Organic-Inorganic Salt of 12-Silicotungstate, (C₂H₅NO₂)₂H₄SiW₁₂O₄₀ and Investigation of Its Anti-Viral Effect on the Tobacco Mosaic Virus

Authors : Mahboobeh Mohadeszadeh, Majid Saghi

Abstract : Polyoxometalates (POMs) are important inorganic compounds that have been considered specifically in recent years due to abundant attributes and applications. Those POMs that have one central tetrahedral atom called keggin. The binding Amino-acid groups to keggin structure give the antivirus effect to these compounds. A new organic-inorganic hybrid structure, with formula (Gly)₂H₄SiW₁₂O₄₀, was synthesized. Investigation on the anti-viral effect of this compound showed the (Gly)₂H₄SiW₁₂O₄₀ prevents infection of Tobacco Mosaic Virus (TMV) on the Nicotianatabacum plants.

Keywords : polyoxometalate, keggin, organic-inorganic salt, TMV

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020